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20 March 1962

OKCART PROGRAM

Increases in scope of work in engine and airframe developments.

A. Pratt and Whitney J-58 Engine

1. In September 1961 the government requested Pratt and Whitney to propose measures to increase development effort on this engine to overcome then current difficulties. On 17 October Pratt and Whitney proposed three alternatives through a 150 hour qualification.

<u>Plan</u>	<u>Main Feature</u>	<u>Added Cost FY 62</u>
I	Add four engines to development	
II	Add two X engines to development	
III	Add two new engines to development	25X1A

The government authorized Pratt and Whitney to adopt Plan II on 4 December 1961.

2. On 15 February 1962 Pratt and Whitney was requested to reexamine measures taken to accelerate engine development. Pratt and Whitney proposed on 24 February to change from Plan II previously approved to Plan I, specifically instituting:

- a. alternate turbine design.
- b. increased effort on hydraulic pump plus alternate pump design.
- c. alternate compressor design.

d. change from engine control at 25X1A
last engine.

- e. engine weight reducing design changes.

3. On 26 February Pratt and Whitney were instructed by the DCI to propose measures intended to produce short term assurance of engine performance and reliability rather than longer term improvements. On 27 February Pratt and Whitney recommended:

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- a. increased effort on hydraulic pump plus alternate pump design.
- b. alternate turbine design.
- c. additional engine parts.
- d. early procurement of long lead items for production engines.
- e. increased test facilities.

All of the above items have been approved. Specifically on item c diversion of the last experimental engine into development test was authorized to save time over that needed to build an entirely new engine. These actions result in a program midway between Plans I and II cited previously.

4. As a result of a meeting on 19 March Pratt and Whitney will submit additional proposals relating to engine controls, compressor, and turbine designs. A report is expected also on effect of NASA rocket engine program on J-73 developments.

B. Airframe

1. Although the first flight date has slipped approximately one year from the initial estimate made at the inception of the program in autumn 1959, the airframe manufacturer had continued to estimate 7 - 9 airframes delivered in the twelve months following first flight and completion of all ten A-12's plus one AF-12 in fourteen to seventeen months. On 4 January these estimates were reduced to five A-12 and one AF-12 during 1962. On 12 February Lockheed was asked to submit firm A-12 delivery schedule. On 24 February Lockheed reported an intent to build four A-12 and one AF-12 in 1962. The first AF-12 had never been approved by the government to appear before number 7 in the line. In response to further queries by the DD/R on 1 March Lockheed replied on 7 March that a target of six aircraft would be aimed for in 1962 with all ten delivered by June 1963. This required increase in personnel by 500 men at once and to 800 total increase by summer 1962. Additional production facilities are also being furnished Lockheed from government sources. This was approved on 13 March and Lockheed was advised that special fast reaction security clearance actions were planned by the government. On 14 March Lockheed reported great difficulty in hiring.

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C. Present Firm Increases in Cost

1. Pratt and Whitney

- a. hydraulic pump
- b. alternate turbine
- c. additional X engine
- d. long lead items
- e. test facilities

FY 1962

FY 1963

25X1A

2. Lockheed

- a. additional personnel
- b. additional facilities

Totals

Total FY 62 & 63

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